272924USOPCT.ST25 SEQUENCE LISTING

```
Onoue, Satomi
Endo, Kousuke
<110>
        Matsumoto, Asami
        PEPTIDES AND MEDICINAL COMPOSITIONS CONTAINING THE SAME
<120>
<130>
        272924US0PCT
<140>
        10/536,880
<141>
        2005-05-27
<150>
        PCT/JP03/14924
        2003-11-21
<151>
        JP 2002-344523
2002-11-27
<150>
<151>
<160>
        34
<170>
        PatentIn version 3.3
<210>
<211>
        27
<212>
        PRT
<213>
        Artificial
<220>
<223>
        Synthetic Peptide
<220>
<221>
        MISC_FEATURE
<222>
        (5)..(5)
        xaa = Val or Ile
<223>
<220>
<221>
<222>
        MISC_FEATURE
        (8)..(8)
<223>
        Xaa = Asp, Glu or Ala
<220>
        MISC_FEATURE
<221>
<222>
        (9)..(9)
        Xaa = Asn or Ser
<223>
<220>
        MISC_FEATURE
<221>
        (11)..(11)
Xaa = Thr or Ser
<222>
<223>
<220>
        MISC_FEATURE (13)..(13)
<221>
<222>
        Xaa = Leu or Tyr
<223>
<220>
<221>
<222>
        MISC_FEATURE
        (15)..(15)
<223> .
        Xaa = Lys or Arg
<220>
<221>
<222>
        MISC_FEATURE (17)..(17)
<223>
        Xaa = Leu or nLeu
```

Page 1

<220>

```
MISC_FEATURE
<221>
<222>
<223>
        (20)..(20)
        Xaa = Lys or Arg
<220>
<221>
<222>
<223>
        MISC_FEATURE
        (21)..(21)
Xaa = Lys or Arg
<220>
<221>
        MISC_FEATURE
        (26)..(26)
Xaa = Ile or Val
<222>
<223>
<220>
        misc_feature (27)..(27)
<221>
<222>
<223>
        Xaa can be any naturally occurring amino acid
<400>
        1
His Ser Asp Ala Xaa Phe Thr Xaa Xaa Tyr Xaa Arg Xaa Arg Xaa Gln 1 10 15
Xaa Ala Val Xaa Xaa Tyr Leu Ala Ala Xaa Xaa 20 25
<210>
<211>
        28
<212>
        PRT
        Artificial
<213>
<220>
<223>
        Synthetic Peptide
<220>
<221>
<222>
        MOD_RES
        (28) ... (28)
<223>
        Amidation
<400>
        2
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
10 15
Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25
<210>
        3
        27
<211>
<212>
        PRT
<213>
        Artificial
<220>
        Synthetic Peptide
<223>
<220>
        MOD_RES
<221>
<222>
        (27)..(27)
<223>
        Amidation
<400>
```

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu 20 25

```
<210>
```

<211> <212> 38 **PRT**

Artificial <213>

<220>

Synthetic Peptide <223>

<220>

<221> <222> MOD_RES (38)..(38)

<223> Amidation

<400>

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu Gly Lys Arg Tyr Lys 20 25 30

Gln Arg Val Lys Asn Lys 35

<210>

31 <211>

<212> PRT

Aftificial <213>

<220>

<221> <222> <223>

MOD_RES (31)..(31)

Amidation

<400> 5

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
10 15

Leu Ala Val Arg Arg Tyr Leu Asn Ser Ile Leu Asn Gly Arg Arg 20 25 30

<210> <211> <212>

30

PRT Artificial <213>

<220>

<223> Synthetic Peptide

```
<221>
<222>
        MOD_RES
        (30)..(30)
<223>
        Amidation
<400>
His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln
10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Val Leu Gly Arg Arg 20 25 30
<210>
<211>
        38
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
        (38)..(38)
<223>
        Amidation
<400>
His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln
10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Val Leu Gly Arg Arg Tyr Arg
20 25 30
Gln Arg Val Arg Asn Arg
35
<210>
<211>
        25
<212>
        PRT
        Artificial
<213>
<220>
<223>
        Synthetic Peptide
<220>
<221>
        MOD_RES
        (25)..(25)
Amidation
<222>
<223>
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 10 15
Met Ala Val Lys Lys Tyr Leu Asn Ser
20 25
```

```
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES (17)..(17)
<223>
        Oxidation
<400>
        9
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
10 15
Met Ala Val Lys Lys Tyr Leu Asn Ser
20 25
        10
23
<210>
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
        MOD_RES
(23)..(23)
<221>
<222>
<223>
        Amidation
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
10 15
Leu Ala Val Lys Lys Tyr Leu
20
<210>
<211>
<212>
        23
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
         (23)..(23)
<223>
        Amidation
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln 10 15
Leu Ala Val Arg Arg Tyr Leu
              20
```

```
<210>
        12
        28
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES (28)..(28)
<223>
        Amidation
<400>
        12
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 10 15
Leu Ala Val Lys Lys Tyr Leu Ala Ala Ile Leu Asn
20 25
<210>
<211>
        13
30
<212>
        PRT
        Artificial.
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
        (30)..(30)
<223>
        Amidation
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln 10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg 20 25 30
        14
<210>
<211><212>
        30
        PRT
<213>
        Artificial
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
         (1)..(1)
<223>
        Acylation
<220>
<221>
        MOD_RES
         (30). (30)
<222>
```

<223>

Amidation

```
<400> 14
```

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
10 15

Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg 20 25 30

- <210>
- <211> 30
- <212> PRT
- Artificial <213>
- <220>
- <223> Synthetic Peptide
- LIPID
- <220> <221> <222> (1)..(1)
- <223> sterate
- <220>
- MOD_RES
- <221> <222> (30)..(30)
- <223> amidation
- <400> 15

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln 1 10 15

Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg 20 25 30

- <210> 16
- <211> 30
- <212> PRT
- Artificial <213>
- <220>
- Synthetic Peptide <223>
- <400> 16

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
10 15

Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg 20 25 30

- <210> 17
- 30 <211>
- <212> PRT Artificial <213>
- <220>
- Synthetic Peptide <223>

```
<221>
<222>
<223>
        SITE
        (17)..(17)
        NLE
<220>
        MOD_RES
<221>
        (30)..(30)
<222>
        Amidation
<223>
        17
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln 1 15
Xaa Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg
20 25 30
        18
28
<210>
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
        (28)..(28)
<223>
        Amidation
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln 10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly
20 25
        19
29
<210>
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221><222><223>
        MOD_RES (29)..(29)
        Amidation
<400>
        19
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
1 10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Lys 20 25
```

```
29
<211>
<212>
       PRT
       Artificial
<213>
<220>
       Synthetic Peptide
<223>
<220>
<221>
<222>
       MOD_RES
       (29)..(29)
<223>
       Amidation
<400>
His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg 20 25
       21
30
<210>
<211>
<212>
       PRT
       Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
       MOD_RES
        (30)..(30)
<222>·
<223>
       Amidation
<400>
        21
His Ser Asp Ala val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Lys Arg 20 25 30
<210>
        22
        30
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
        (30)..(30)
        Amidation
<223>
<400> 22
His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Arg Leu Arg Arg Gln 10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg
```

```
23
23
<210>
<211>
<212>
        PRT
        Artificial
<213>
<220>
       Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES (23)..(23)
<223>
        Amidation
<400>
        23
His Ser Asp Ala Val Phe Thr Glu Asn Tyr Thr Arg Leu Arg Arg Gln 1 10 15
Leu Ala Val Arg Arg Tyr Leu
20
<210>
        24
        30
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
<223>
        MOD_RES
        (30)..(30)
        Amidation
<400>
        24
His Ser Asp Ala Val Phe Thr Ala Asn Tyr Thr Arg Leu Arg Arg Gln
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg 20 25 30
        25
23
<210>
<211>
<212>
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
        MOD_RES
<222>
        (23)..(23)
        Amidation
<223>
<400>
        25
His Ser Asp Ala Val Phe Thr Ala Asn Tyr Thr Arg Leu Arg Arg Gln
```

Page 10

```
Leu Ala Val Arg Arg Tyr Leu
20
```

```
<210>
         26
<211>
<212>
         30
         PRT
         Artificial
<213>
<220>
         Synthetic Peptide
<223>
<220>
<221>
<222>
<223>
         MOD_RES (30)..(30)
         Amidation
<400>
         26
```

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Arg Gln
1 10 15

Leu Ala Val Arg Arg Tyr Leu Ala Ala Val Leu Gly Arg Arg 20 25 30

```
<210>
<211>
<212>
        27
        30
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
        MOD_RES
<221>
<222>
        (30)..(30)
<223>
        Amidation
```

<400> 27

His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln 10 15

Leu Ala Val Arg Arg Tyr Leu Ala Ala Val Leu Gly Arg Arg 20 25 30

```
<210> 28
<211> 30
<212> PRT
<213> Artificial
<220>
<223> Synthetic Peptide
<400> 28
```

His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln 10 15

Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg 20 25 30

```
<210>
<211>
<212>
        29
30
        PRT
        Artificial
<213>
<220>
        Synthetic Peptide
<223>
<220>
<221>
<222>
        MOD_RES
        (1)..(1)
Acetylation
<223>
<220>
<221>
        MOD_RES
        (30)..(30)
<222>
<223>
        Amidation
<400>
His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln 10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Val Leu Gly Arg Arg 20 25 30
         30
<210>
<211>
         38
<212>
         PRT
        Artificial
<213>
<220>
         Synthetic Peptide
<223>
<220>
        MOD_RES (38)..(38)
<221>
<222>
<223>
         Amidation
<400>
         30
His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln
10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Val Leu Gly Arg Arg Tyr Arg 20 25 30
Gln Arg Val Arg Asn Arg
35
<210>
<211>
<212>
         38
         PRT
         Artificial
<213>
```

<220>

```
Synthetic Peptide
<223>
<220>
<221>
       MOD_RES
<222>
        (38)..(38)
<223>
        Amidation
<400>
        31
His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln
1 10 15
Leu Ala Val Arg Arg Tyr Leu Ala Ala Ile Leu Gly Arg Arg Tyr Arg 20 25 30
Gln Arg Val Arg Asn Arg
35
       32
23
<210>
<211>
<212>
       PRT
        Artificial
<213>
<220>
<223>
        Synthetic Peptide
<220>
<221>
        MOD_RES
<222>
        (23)..(23)
<223> Amidation
<400>
His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln
10 15
Leu Ala Val Arg Arg Tyr Leu
20
       33
23
<210>
<211>
<212>
        PRT
       Artificial
<213>
<220>
       Synthetic Peptide
<223>
<220>
<221>
<222>
       MOD_RES
        (1)..(1)
       Acetylation
<223>
<220>
        MOD_RES
<221>
        (23)..(23)
<222>
<223>
```

His Ser Asp Ala Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln Page 13

Amidation

<400>

1 .

Leu Ala Val Arg Arg Tyr Leu 20

<210> 34
<211> 23
<212> PRT
<213> Artificial
<220>
<223> Synthetic Peptide

<220>
<221> MOD_RES
<222> (23)..(23)
<223> Amidation

<400> 34

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Arg Gln 10 15

Leu Ala Val Arg Arg Tyr Leu 20